

5th Grade Magnet Summer Newsletter

Summer 2019

Stephen Foster Elementary School

Welcome to 5th Grade! We're excited about next year and hope you are too! This summer it's important that you read, so you can continue to grow as a reader. Read the books that interest you, but also read your required homework. During the year we'll be reading novels as a class to expand our vocabularies and understanding of deeper themes that authors' use. We hope you enjoy your summer. Relax, play outside, and be prepared to dive into learning starting August 12th!

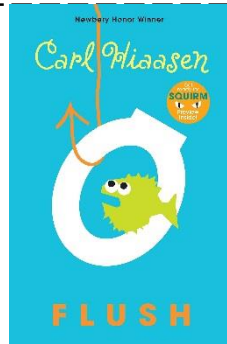
Classroom Supply List

- 2 packs of #2 pencils
- 2 packs of colored pencils
- tab dividers
- pencil pouch
- 2 dry erase markers
- 1 pair of scissors
- 1" 3 ring binder
- ear buds
- 3 pocket folders (no prongs)
- 3 glue sticks
- 3 composition notebooks (different colors)

Required Summer Reading

The required summer reading for upcoming 5th graders is *Flush* by Carl Hiaasen.

Attached to this newsletter you will find the directions for assignments to complete after reading the book. We hope you have a wonderful summer and we will see you in August!



It is recommended that students engage themselves in good books all summer long. The top books chosen by the Sunshine State Young Readers Award lists books for students at all grade levels. Although not required, these books are regarded as high interest. The following books were listed first on their list for upcoming 5th graders: *Absolutely Almost* (Lisa Graff) and *All Four Stars* (Tara Dairman).

Required Summer Science Investigation

See attached paper for your summer science assignment and Stem Lab Wish List. Science Assignment Due: Wednesday, August 14, 2019

Math Expectations

Students will know **ALL** multiplication and division facts.

Important Dates

- August 9: Meet the Teacher
- August 12: First Day of School
- August 14: Summer Assignments Due

Classroom Supply Donations

- Post-it notes and flag tabs
- Tissues
- Clear and White tape
- Hand sanitizer
- Lysol wipes
- Black Sharpie Markers
- Magic Erasers

Summer Reading Assignments – 5th

Read the novel *Flush* by Carl Hiaasen. **Assignment #1 is required.** Then **choose** between assignment 2 and 3. Articles needed for assignment 1 are attached.

Assignment #1

Flush, Source 1, and Source 2 explore water-based environmental issues that are caused by humans but affect all life forms. Write an informational essay that discusses the different ways that water-based environmental irresponsibility can affect animals and humans. Use all three sources to support your reasoning.

Assignment #2

Create a diorama of a scene from the novel. Include images/models and quotes that portray the character traits of the main character.

Assignment #3

Create a board game based on the novel. Construct game pieces, directions, rules, 30 accompanying questions that test the knowledge of the players, and a box in which to contain the game.

Source #1: National Wildlife Federation - Ranger Rick on the Big Oil Spill

Ranger Rick answers your questions.

Cleanup crews are working around the clock to contain and clean up a large oil spill in the Gulf of Mexico. The spill has created an oil slick that is threatening wildlife in the Gulf and surrounding wetlands. Here's what kids are asking about the spill—and answers from environmental experts at *Ranger Rick* magazine.

What happened?

Hundreds of oil wells have been drilled into the ground beneath the Gulf of Mexico. At each deep-water well, a pipe carries the oil from deep in the Gulf floor up to a platform that floats on the water's surface. Here the oil is collected and shipped to land for us to use. On April 20, a new well had just been drilled. Suddenly, some natural gas and oil accidentally escaped from the well and gushed to the surface. Then, right beneath the drilling platform, it exploded in a huge fireball. The damaged platform sank and pulled the pipe leading from the well down with it. The broken pipe leaked oil into the Gulf for more than 80 days. The leaking pipe has finally been capped, but no one is yet sure if it will hold.

Why are people so worried about the leak?

The oil that was coming out of the ocean floor is a dark, thick, sticky liquid with a strong odor. Much of the oil is now floating to the surface and spreading, creating an oil "slick" that covers hundreds of square miles. It coats everything it touches in a layer of sticky oil. The oil also pollutes the water, and air above it, with fumes that are dangerous to breathe. Huge clouds of oil are also spreading beneath the surface, and no one is sure what kind of damage they may do to living things.

Millions of gallons of oil have leaked into the Gulf so far. As more and more oil leaks from the well, [the slick spreads farther and farther](#). It has now washed up onto the coast, and into wetlands in some areas. This presents a serious threat to plants and animals that live there.

What happens to the animals that get covered in oil?

Birds get the oil on their feathers when they dive into the water for food or when they land on the surface to rest. When they try to clean their feathers with their beaks, they can accidentally swallow some of the oil. The oil also hurts their eyes and harms their lungs. People are capturing some of these birds and trying to clean them, but many of the oil-soaked birds still die.

Ocean animals, such as sea turtles and dolphins, also get oil on them when they come to the surface to breathe. They can be harmed by chemicals in the oil, especially if they swallow or breathe some. Hundreds of sea turtles have died from the spill. Smaller creatures aren't safe either. Countless larvae (young) of fish, shrimp, crabs, oysters, and turtle hatchlings, which swim in the open sea, have also been killed by the pollution, scientists believe.

What happens as the oil reaches the coast?

The Gulf of Mexico Coast is one of the most productive natural areas in the entire world, with millions of acres of marsh, swamp, forests, and islands. Hundreds of species of birds and other wildlife feed and nest there, including some that are rare. The young of many species of fish and other animals grow up in the wetlands. And the wetlands help protect the coastline from hurricanes. When oil enters a wetland, it covers almost everything it touches—the plants, the animals that eat the plants, and the animals that eat the animals that eat the plants. When birds come to feed, they can get coated in oil or poisoned by the oil-covered animals they eat. And when the oil-covered plants die, they wash away, and the wetlands can disappear. The oil also soaks into the soil and sand and can suffocate and poison living things.

Will the disaster also harm people?

Eleven people died from the explosion on the oil platform. At sea and on land, others may become sick from touching the oil and breathing the fumes. And we don't even know what some of the long-term harm to people might be.

Thousands of people make their living by catching the fish, crabs, and shrimp that depend on wetlands. Many of these people are already unable to work because of the spill. And if the oil kills too many fish and other sea creatures, there may be little for the fishermen to catch in the future.

How is the leak being cleaned up?

Here are four main ways:

- 1. Chemical Dispersants.** Chemicals are added to the oil to separate (disperse) it into smaller pieces. Natural microbes (small organisms such as bacteria) in the water can then break down the oil more easily. Unfortunately, these chemicals can be harmful to fish and other wildlife, and they can cause tiny drops of oil to spread more widely. Scientists have already discovered large clouds of oil drops beneath the surface of the Gulf. They fear that this oil will kill many of the tiny creatures that animals depend on for their food.
- 2. Skimming.** Boats suck up, or skim, the oil from the water surface and put it into tanks. This works only in calm waters. Plus, using dispersants can make it hard to skim oil.
- 3. Burning.** Oil is sometimes burned right off the water's surface. The down side of this method? It can add to air pollution.

4. Separating. Not long from now, 32 large machines that can clean oil from seawater will be brought to the Gulf. They will suck in both oil and water, and separate them by spinning the mixture. The oil will be collected and stored on board a ship, and the clean water will be pumped back into the Gulf. The designers say the water that goes back into the sea will be almost completely free of oil.

These 32 machines will be able to clean up to 6 million gallons of water each day. That sounds like a lot, but during those same 24 hours, many more times that much water will have been contaminated by new oil leaking from the well. So, no one really knows how much these machines will be able to help the clean-up.

Why couldn't the oil leak be stopped quickly?

There's a giant shut-off valve on the oil well, called a "blowout preventer." It was designed to cut off the flow of oil in case of an accident like this. But for some reason, it didn't work. (No one is sure exactly why yet.) Workers tried to use robots to repair the valve, but that didn't work either.

Since then, workers have tried other ways of stopping or slowing the leak. Finally, on July 15, they managed to put a huge cap on the pipe sticking up from the well. That has stopped the leak, but no one is sure how long the cap will hold.

Meanwhile, workers are drilling two more oil wells (called relief wells) to try to cut off the oil supply to the capped well. If they succeed, they finally will have "killed" the well and stopped the leak for good. But it will probably take until sometime in August for the first relief well to reach the capped well.

- **Cap and Collect.** Workers tried to cover the main leak in the pipe a mile deep in the Gulf with a huge dome. They hoped that it would trap the oil so it could be collected and hauled to shore in ships. That dome became clogged with ice. So workers then put a smaller one in place. This dome, or cap, trapped some oil, but most was still leaking into the sea. BP has now replaced this cap with a tighter one that, we all hope, will capture most or all of the leaking oil.

- **Suck It Up.** Workers have placed a pipe into the side of the broken blowout preventer. This pipe is collecting oil and natural gas, and carrying them to the surface. There, the gas is being burnt away, and the oil is being taken to shore. Soon workers will add more pipes to the blowout preventer to try to capture still more oil.

- **Cut It Off.** Workers are drilling two more wells (called relief wells) to try to cut off the oil supply to the leaking well. But it will take until at least the end of July for the first relief well to reach the leaking well.

Whose fault is it?

Many people blame the oil company, BP (once called British Petroleum), for not taking enough care in drilling for oil so deep in the sea. They say the company tried to save money by not doing all it should have done to make sure the well was safe. People also blame BP for not being better prepared to deal with a disaster like this. And the drilling crew itself may be partly to blame. Some say the workers may have overlooked signs of trouble as they hurried to leave the rig and get on to the next job.

Others are also blaming the U.S. government. They say that officials should have been making and enforcing stronger safety and environmental protection laws. They also say that the clean-up operations could have been managed in a more orderly way.

But you could say that all of us play a part: People all over the world keep demanding—and using—more and more oil. That means more and more oil has to be found and pumped out of the ground. That can be harmful to the Earth even where drilling is easy. But the "easy" oil is almost all gone, so oil companies have to go to places where drilling becomes very risky—like in the deep waters of the Gulf.

What can people do to change things?

One thing each of us can do is to try to use less oil and other "fossil fuels," and that's where kids can help. [Learn how to help your family live a greener lifestyle, one that uses less oil and fossil fuels.](#) But stopping disasters like this will take a lot more than that. We'll have to pressure our government officials to make stronger environmental laws and rules. We'll have to get them to lead the way in getting more energy from the sun, the wind, and other clean and renewable sources. And we'll have to get them to join with other countries to cut carbon dioxide pollution and stop global warming.

What can I do to keep from feeling so sad and worried about what's happening?

It may help a little to know that millions of other people are feeling sad and worried, too. You should also know that from these feelings often comes action!

There may not be a whole lot kids can do about oil spills and other disasters. But you can tell your parents, teachers, religious leaders, and other grown-ups how you feel—and then ask them what they are going to do to change things. How about getting together with your parents to write a letter to your member of Congress? Or how about asking your teacher to help you learn more about where our energy now comes from—and how we can change?

Environmental disasters truly are tough on us, on wild creatures, and the wild places we all love and need. But it often takes things like this to make us do what's right. So let's not let this one go to waste!

Source #2: Dogonews - The Water Crisis in Flint, Michigan (*Meera Dolasia*)

Thanks to strict regulations imposed by the US Environmental and Protection Agency, clean tap water is something Americans take for granted. But such is not the case for the residents of Flint, Michigan. Their water supply is so **tainted** that President Obama declared a federal state of emergency in Flint releasing up to \$5 million USD to help the city **combat** what is probably one of the biggest public health crisis of recent times.

The chain of events that led to this **unprecedented** situation began in 2013. In a bid to save money, city officials decided to stop purchasing water from Detroit and instead switch to a new water authority. This move they claimed would save the financially-strapped city millions of dollars. Given that the new water authority planned to bring in water from Lake Huron, the same source as used by Detroit, it appeared to be a smart move.

The plan, however, had one major **flaw**. While the contract with Detroit ended in 2014, the pipeline that would bring water from the new supplier was not expected to be ready until 2016. But the officials were not concerned. They had the perfect **interim** solution. They would save even more money by using water from the nearby Flint River. Though the river has a **storied** history because of past use as a dumping ground for chemicals and trash, it has since been cleaned up and, therefore, **deemed** 'safe' to use for the city's water supply.

The switch, which was made in April 2014 was declared a "historic moment" by the city's former Mayor Dayne Walling. The State Department of Environmental Quality **proclaimed** that the water quality was so good that residents would not notice the difference.

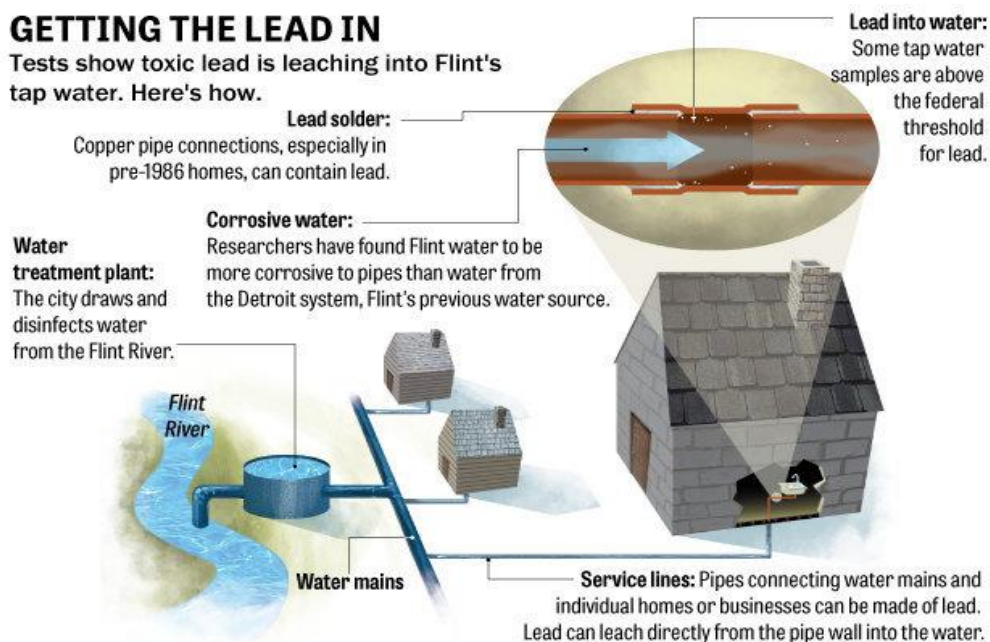
But they were wrong. Almost immediately, residents began complaining about the water's **foul** taste and appearance. But city officials kept insisting the water was perfectly fine and safe, and the Mayor was even quoted saying "I think people are wasting their precious money buying bottled water."

Over the next few months, there would be numerous other safety concerns, including a citywide **advisory** to boil the water after e.coli bacteria were detected. Another red flag came in October 2014 when General Motors refused to use the water because it was rusting car parts. The city immediately agreed to allow the car manufacturer to tap into a different water line. However, they did nothing for the residents, because as they kept **asserting**, there was nothing wrong with the water!

It took another year, and numerous protests and expert opinions before Michigan Governor Rick Snyder finally stepped in and announced that the state would purchase water filters for schools. He also asked experts to check for the levels of lead in school water supplies. They were so high that the following week, the governor **allocated** \$6 million USD to enable Flint to switch back to water from Detroit.

GETTING THE LEAD IN

Tests show toxic lead is leaching into Flint's tap water. Here's how.

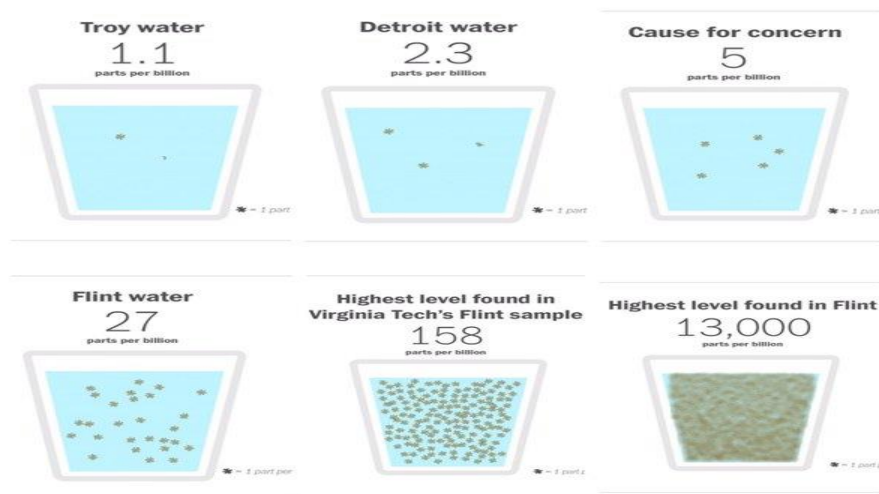


But that has not helped the issue. That's because the lead was not in the Flint River water, but being **leached** by the pipes that it flows through. Turns out that like most rivers, the water in the Flint River has a high concentration of chloride ions thanks to the run-off from large amounts of salt used to de-ice roads during winter. While safe for humans they are highly **corrosive**, which is why General Motors experienced the rusting. Hence, as the water flowed through the pipes, many of which were built before the use of lead was banned, it ate away at the coating, enabling the harmful lead to leach in. It is therefore no wonder that three months after the switch, authorities continue to advise residents to use bottled water for all their needs.

What's **ironic** is that a 2011 study had found that adding an anti-corrosive agent that would have cost a mere \$100 USD a day would have **eliminated** about 90% of the current issues. Whether the officials forgot or just didn't want to add the chemical is currently under investigation as is the question of who is to blame for this **catastrophe**.

Meanwhile, the residents of Flint are left suffering the **consequences** of the poor decisions. In addition to dealing with the high lead levels in their tap water, they are also concerned about their health. A study published in the American Journal of Public Health in December revealed that the number of children with dangerously high lead levels in their blood has doubled since the water supply was switched. This is extremely **worrisome** given that early lead exposure is **detrimental** to young children whose **neurological** systems are still forming. It is known to result in lower IQ, behavioral issues and developmental delays.

Though the damage cannot be reversed, health workers are trying to do everything they can to mitigate the effects. This includes educating parents about feeding young kids a diet rich in iron, calcium, and vitamin C - All known to fend off the harmful impact of lead exposure. They are also working with teachers to identify developmental issues earlier on so that affected kids can be channeled into special programs.



Even if all the health damage caused thus far is controlled, there is still the question of how the problem will be solved permanently. While Michigan Governor Rick Snyder accepted responsibility for the **debacle** in his January 19 State of the State address and promised to fix things, it is easier said than done.

According to experts about half of Flint's residents are receiving water via corroded lead pipes. While changing water filters regularly can **mitigate** the problem, the only way to fix it is by replacing the pipes which according to Flint's new mayor will cost \$1.5 billion USD - Money that will be hard to come by in this cash-strapped city!

Diorama Rubric

Objective: Create a diorama of a scene from the novel, Flush (Carl Hiaasen). Include images/models and quotes that portray the character traits of the main character.

Category	4 points	3 points	2 points	1 point
<i>Appearance, Style and Organization</i>	Project is excellently presented reflecting creativity and a lot of thought. Materials are complete and well organized.	Good creative effort. Project is neat and shows evidence of time spent on it. Most materials are organized.	Some attempt made to add color and originality. Project is neat. Materials are not organized but present.	Little attempt to add color or originality. Project has sloppy appearance. Materials are incomplete and not organized.
<i>Creation of Images/Models</i>	All images/models are effective. The project's appearance is professional and polished without distracting elements.	All images/models are effective, but there appear to be too few or too many. The project's appearance is quite professional and polished few distracting elements.	Some images/models are effective. The project's appearance is somewhat poor. Some distracting elements.	Too few images/models are used to be an effective presentation. The project's appearance is quite poor. Many distracting elements.
<i>Display of Character Traits</i>	The diorama demonstrates a thorough knowledge of the subject investigated. Character traits of the main character are excellently displayed through images/models.	The diorama demonstrates good knowledge of the subject investigated. Character traits of the main character are adequately displayed through images/models.	The diorama demonstrates some knowledge of the subject investigated. Character traits of the main character are partially displayed through images/models.	The diorama demonstrates very little knowledge of the subject investigated. Character traits of the main character are not effectively displayed through images/models.
<i>Textual Evidence</i>	Quotes are exemplary and suggest that the student has discovered many important ideas within the text.	Quotes are good and suggest that the student has discovered some important ideas within the text.	Quotes are fair/poor and suggest that the student has not discovered some of the important ideas within the text.	Quotes are poor and suggest that the student has not done sufficient research within the text.

Board Game Rubric

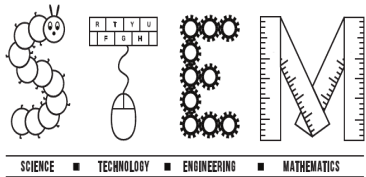
Objective: Create a board game based on the novel, Flush (Carl Hiaasen). Construct game pieces, directions, rules, 30 accompanying questions that tests the knowledge of the players, and a box in which to contain the game.

Category	5 points	4 points	3 points	2 points	1 point
<i>Design and Creativity</i>	Everything is neatly created and directions were followed completely.	Game board is excellent but some parts are not neat.	Game board is complete but 1 or 2 elements are missing and it could be neater.	Many of the directions / responsibilities were ignored and the board is not neat.	There is a game board but it is unattractive and no extra efforts were made at creativity.
<i>Questions</i>	There are 30 questions and answers; they are well incorporated into the game.	A couple of questions or answers are missing or incorrect.	About half of the questions/answers are missing or incorrect.	Many questions/answers are incorrect or missing and very few are required to play the game.	Most questions/answers are incorrect or missing and very few are required to play the game.
<i>Format and Purpose</i>	The purpose of the game relates directly to the novel and the game board represents the theme.	The purpose closely relates to the novel and the game board somewhat represents the theme.	The purpose partially relates to the novel and the game board doesn't clearly represent a theme.	The purpose slightly relates to the novel but does not represent a theme.	It is unclear what the purpose and theme of the game are from the appearance.
<i>Directions</i>	Directions make it perfectly clear how to play the game. They are neatly written/typed with minimal grammatical errors.	Directions have 2-3 minor grammatical errors. They are somewhat unclear or 1 step is missing.	Directions have 4 or more grammatical errors. Directions are unclear and 2-3 steps could be added to clarify	Errors in grammar interfere with understanding of the directions. Much revision is needed.	Complete revision needed. Many steps are missing or incomplete and it is very difficult to understand how to play the game.
<i>Content and Difficulty</i>	Questions and rules of play are of an appropriate level-- not too difficult and not too easy.	Rules of play are age appropriate but some questions are too easy or too difficult.	Game is a bit too simple for the grade level and some questions are too easy.	Game is very simple and most questions are too easily answered.	Game is not appropriate for the grade level and questions are too easy or too difficult.

Essay Rubric

Objective: Flush (Carl Hiaasen), Source 1, and Source 2 explore water-based environmental issues that are caused by humans but that affect both animals and humans. Write an informational essay that discusses the different ways that water-based environmental irresponsibility can affect animals and humans. Use all three sources to support your reasoning.

Category	4 points	3 points	2 points	1 point
<i>Introduce a topic clearly, provide a general observation and focus; including formatting when useful to aid comprehension.</i>	Tightly focused, clear topic presented; Format contributes significantly to understanding	Focused Topic; Format aids understanding	Topic somewhat focused; Format is present	Topic unclear; No format
<i>Develop a topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.</i>	Topic is well developed with specific, detailed evidence from each text; Text evidence is accurate, precise and fully supports points made by the writer.	Topic is well developed with specific details from each text; Evidence from the text supports points made by the writer.	Topic is developed with some examples from each text.	Topic not developed; Lack of details
<i>Link ideas within and across categories of information using words, phrases, and clauses. (e.g., in contrast, especially)</i>	Ideas are linked within and across categories using mature wording; Word choice enhances and clarifies understanding of the essay.	Adequate linking of ideas across categories; Word choice contributes to the understanding of the essay.	An attempt to link ideas across categories; Repetitive phrasing may exist.	No linking of ideas across categories of information
<i>Use precise language and domain-specific vocabulary to inform about or explain the topic.</i>	Mature language is consistently used in the essay to explain the topic; Specific, precise vocabulary and phrasing used to support, clarify and extend the writer's points; Essay includes several examples of vocabulary and phrasing from the texts.	Precise language is used to explain the topic; Specific references are used to support the writer's points; Essay includes some examples of vocabulary and phrasing from the texts.	Immature language is used; General references; Essay includes few or no examples of vocabulary and phrasing from the texts.	Vague language; Unrelated references; No specific vocabulary related to the text.
<i>Provide a concluding statement or section related to the information or explanation presented.</i>	Strong conclusion statement or section firmly related to the points made by the writer.	Conclusion supports the points made by the writer.	Weak conclusion; Conclusion does not fully support points made by the writer.	No conclusion statement



Stem Lab

Summer Science Assignment

Summer 2019

Stephen Foster Elementary School

Name: _____

Weather Watchers

For your summer assignment, you will analyze the data below! Please answer the questions in complete sentences. After answering the questions, please create a graph on the back of this paper representing the data in the table.

Data Table Title: Average Monthly Rainfall and Temperature

Month	Jan.	Feb.	Mar	Apr.	May	Jun e	July	Aug.	Sept	Oct.	Nov.	Dec.
Average Rainfall (Inches)	4.81	3.43	3.51	2.77	2.16	1.63	0.79	0.97	1.52	3.41	5.84	5.43
Average Temperature (Fahrenheit)	47	50	54	59	64	70	76	76	71	60	51	46

What can you infer or conclude based on the data above?

Based on the information given, in what region of the United States do you think this data was collected in?

Describe a pattern you notice in the data.

Why do scientists collect and analyze data?

Important Dates

- August 14: Summer Science Assignment Due

Stem Lab Wish List

- Mechanical Pencils
- Clear Cups
- Expo Markers
- * Tape (any kind)
- * Tissues
- * Skinny sharpies

